

ATTACHMENT J4

# Vance AFB Wastewater Collection System

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# J4 Vance AFB Wastewater Collection System

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## J4.1 Vance AFB Overview

Vance AFB, located three miles south-southwest of Enid in Garfield County, Oklahoma, is an Air Education and Training Command (AETC) installation that conducts joint specialized undergraduate pilot training (JSUPT). The Installation is essentially a single-mission base with the primary organization, the 71st Flying Training Wing (71st FTW), graduating about 250 pilots from its pilot training program each year. T-37, T-38, and T-1 aircraft are assigned to the 71st FTW.

Vance AFB occupies 2,000 acres. Recent land acquisitions include 130 acres on the north side of installation given to the Installation by the City of Enid in 1999 and another 10 acres given by the City of Enid in 2001. Vance AFB has a total population of approximately 3,500, including military personnel, civilian employees and support personnel, students, and dependents. Facility space totals approximately 1.94 million square feet (msf) (Industrial: 1.19 msf; Administrative: 0.20 msf; Military Family Housing (MFH): 0.38 msf; Unaccompanied Housing: 0.16 msf; Transient Quarters: .01 msf). The annual payroll at Vance AFB is approximately \$65 million (combined military, civilian, and retirees), and the Base is vital to the local economy through civilian employment, contracting, and purchases from local businesses.

There are no known factors that would effect any significant changes in total Vance building space and the consequent impact on Vance utility requirements.

Kegelman Auxiliary Airfield is a small training airfield, about 45 miles northwest of Vance AFB and west of Oklahoma Highway 38, that covers 1,076 acres with only nine buildings totaling approximately 8,135 square feet of industrial/administrative space.

## J4.2 Wastewater Collection System Description

### J4.2.1 Wastewater Collection System Fixed Equipment Inventory

The Vance wastewater collection system consists of all appurtenances physically connected to the collection system from the point of demarcation defined by the Right of Way. The system may include, but is not limited to, pipelines, manholes, lift stations, and controls. The actual inventory of items to be sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the wastewater collection system privatization:

- The small industrial wastewater collection system, oil/water separator, and pretreatment plant will remain the property of the Government; the operation and maintenance (O&M) contractor will continue operation and maintenance.
- The groundwater extraction, collection, and pretreatment system will remain the property of the Government; the O&M contractor will continue operation and maintenance.
- Kegelman fire station sewer line, septic tank and leach field are excluded. (There are no other wastewater components at Kegelman.)
- Wastewater system within the Military Family Housing area.

#### J4.2.1.1 Description

The City of Enid, Oklahoma treats all the wastewater generated at Vance AFB. The sewage generated by Vance AFB flows by gravity through a City-owned master metering station. The City-owned metering station is a large manhole/pit located near the Industrial gate, just inside the perimeter fence and north of the fuel storage area.

There are two wastewater collection system areas on Vance AFB. One area is the Main Base area, originally constructed in 1942. The other is the family housing area, constructed in 1960. Depth of burial for sewer mains ranges from 4 feet to 10 feet. There are about 43,000 feet of wastewater mains and an estimated 10,000 feet of service laterals in the Main Base area with pipe sizes between 3 inches and 15 inches in diameter. Most sewer mains are vitrified clay pipe. Main Base clay mains (6 feet and larger) were slip-lined in 1995. There is a limited amount of cast iron pipe on the Main Base. A relatively small quantity of PVC line has been installed in recent years. (The PVC lines were installed with tracer wire and warning foil.) Sewer mains on the Main Base were slip-lined in 1995.

There are five lift stations located throughout the Base. The largest lift station (Facility 1429) is in the family housing area, and pumps all the family housing sewage to a manhole in the Main Base area. From there, it flows by gravity to the metering point. There are also two relatively small lift stations near the flight line, near Facilities 141 and 195, which collect sewage from four facilities and pump the sewage to the Base's gravity system. There is a small lift station near the Industrial Gate House (Building 261) that pumps wastewater from the gatehouse into the Base's gravity system. The last lift station is on the southeast corner of the Base, near Facility 901, and pumps the sewage generated at the pistol range area to the Base's gravity system.

Until February 1990, Vance AFB owned and operated a wastewater treatment plant. At that time, Vance connected to the City's treatment plant for treatment of all of Vance's wastewater and abandoned their treatment plant.

For many years, Vance has operated a small industrial wastewater collection system and pretreatment facility (Building 193). Industrial wastewater is collected from a few buildings in the proximity of Building 193. The wastewater passes through an oil/water separator before flowing to the pre-treatment facility. In February 1990, Vance began operation of a pre-treatment plant (Building 258) for contaminated groundwater. The pre-treated effluent from both plants is then discharged into the sanitary wastewater collection system. The City

of Enid has issued discharge permits for both pre-treatment facilities. Plant operators perform regular sampling and the City of Enid does occasional sampling to confirm compliance with the discharge permits. Since both of these plants, including their associated collection and extraction systems, are excluded from the privatization package, the O&M contractor will continue to operate them and the Government will retain responsibility for the permits.

Vance AFB has a small wastewater collection system at Kegelman Field. The wastewater collection system consists of a simple sewer line from the fire station to a septic tank and drain field. This system is excluded from the privatization package.

#### J4.2.1.2 Inventory

**Table 1** provides a general listing of the major wastewater collection system fixed assets for the Vance AFB wastewater collection system included in the sale. The Drawing used to develop the inventory was the Vance Comprehensive Plan Tab G-2, Sheet 1 (1958).

TABLE 1  
 Fixed Inventory  
 Wastewater Utility System - Vance AFB

Component	Size	Unit	Quantity	Construction Date
<b>Pipe</b>				
VC	3"	LF	190	1942
VC	4"	LF	805	1942
VC	6"	LF	17,632	1942**
VC	8"	LF	11,220	1942**
VC	10"	LF	5,960	1942**
VC	12"	LF	3,057	1942**
VC	15"	LF	540	1942**
CI	6"	LF	1,840	1942
CI	3"	LF	900	1942
PVC	3"	EA	580	1992
PVC	3"	EA	200	1999
<b>Manholes</b>				
Manholes	6x8	EA	106	1942
<b>Lift Stations</b>				
Near #901, Medium		EA	1	1942
Near #901, Medium, Bldg		EA	1	1942
Near #261, Small		EA	1	1992
Near #261, Small, Bldg		EA	1	1992
Near #141, Small		EA	1	1992
Near #141, Small, Bldg		EA	1	1992
Near #195, Small		EA	1	1992
Near #195, Small, Bldg		EA	1	1992
<b>Industrial Service</b>				
PVC Pipe	6"	LF	10,000	1942
CI Cleanout T	6"	EA	100	1942
<b>Force Main</b>				

Force Main LS#901	3"	LF	260	1942
Force Main LS#901	6"	LF	640	1942
Force Main LS#261	3"	LF	625	1992
Force Main LS#195	6"	LF	600	1992
Notes: **Slip-lined in 1995 VC = vitrified clay                      CI = cast iron PVC = polyvinyl chloride              LS = lift station LF = linear feet                          EA = each				

## J4.2.2 Wastewater collection system Non-Fixed Equipment and Specialized Tools

**Tables 2 and 3** would typically list other ancillary equipment (spare parts) and specialized vehicles and tools included in the purchase. However, Vance is a very small installation with a small, contracted O&M operation. The Installation does not maintain significant levels of spares (they are actually prohibited from maintaining such levels), nor is there specialized equipment that could be made available for privatization. Hence, **Tables 2 and 3** reflect no items available for privatization.

TABLE 2  
 Spare Parts  
*Wastewater Utility System - Vance AFB*

Quantity	Item	Make/Model	Description	Remarks
None				

TABLE 3  
 Specialized Vehicles and Tools  
*Wastewater Utility System - Vance AFB*

Description	Quantity	Location	Maker
None			

## J4.2.3 Wastewater collection system Manuals, Drawings, and Records

**Table 4** lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4  
 Manuals, Drawings, and Records  
*Wastewater Utility System - Vance AFB*

Quantity	Item	Description	Remarks
1	Drawing	Comprehensive Plan, Tab G-2 (1958)	Sheet 1 of 1

## J4.3 Specific Service Requirements

The service requirements for the Vance AFB wastewater collection system are as defined in the Section C, *Description/Specifications/Work Statement*.

There are no special/more restrictive service requirements than those listed in Section C.

## J4.4 Current Service Arrangement

- Provider Name: City of Enid, Oklahoma
- Average Usage: Average annual discharge is approximately 90,000 KGals.
- Annual Usage Fluctuations: Annual discharge Fluctuations have been relatively insignificant and are generally consistent with non-irrigation water consumption. Peak months are primarily in the spring with the peak monthly discharge at 9,400 KGals. Monthly discharge during remaining month average between 4,000 and 5,000 KGals. Total discharge quantities exceed potable water consumption quantities because of the groundwater treatment plant effluent into the wastewater collection system.
- A former DODS school, turned over to the local school district several years ago, is connected to the Vance wastewater collection system. Billing for wastewater treatment is handled directly by the City of Enid with billed quantities subtracted from the master-metered Vance AFB bill. There are no other known special service agreements or commitments.
- The City of Enid has issued discharge permits for the industrial wastewater and groundwater pre-treatment facilities. Vance AFB will retain responsibility for these permits. Plant operators perform regular sampling and the City of Enid does occasional sampling to confirm compliance with the discharge permits.

## J4.5 Secondary Metering

### J4.5.1 Existing Secondary Meters

There is no metering of wastewater other than the City-owned master meter used to measure total wastewater flow from the Installation.

### J4.5.2 Required Secondary Meters

There are no known requirements for additional metering devices.

## J4.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. **Invoice** (IAW G.2): The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25<sup>th</sup> of each month for the previous month. Invoices shall be submitted to:

*Name:* Rick Boggs  
71 FTS/LS/CE  
*Address:* 320 Young Road  
Vance AFB, OK 73705  
*Phone number:* (580) 213-7071

2. **Outage Report:** The Contractor's monthly outage report (blockage and overflow information) will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25<sup>th</sup> of each month for the previous month. Outage reports shall be submitted to:

*Name:* Rick Boggs  
71 FTS/LS/CE  
*Address:* 320 Young Road  
Vance AFB, OK 73705  
*Phone number:* (580) 213-7071

3. **Infiltration and Inflow Report:** If required by Paragraph C.3, the Contractor shall submit an Infiltration and Inflow report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25<sup>th</sup> of each month for the previous month. System efficiency reports shall be submitted to:

*Name:* Rick Boggs  
71 FTS/LS/CE  
*Address:* 320 Young Road  
Vance AFB, OK 73705  
*Phone number:* (580) 213-7071

## J4.7 Infiltration and Inflow (I&I) Projects

IAW Paragraph C.3, Requirement, there are currently no I&I efforts that require continuation after privatization other than the I&I report mentioned in J4.6.

## J4.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Vance AFB boundaries.

## J4.9 Off-Installation Sites

No off-Installation sites are included in the sale of the Vance AFB wastewater collection system. The small Kegelman septic system is excluded entirely.

## J4.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 5** provides a listing of service connections and disconnections required upon transfer.

**TABLE 5**  
 Service Connections and Disconnections  
*Wastewater Utility System - Vance AFB*

Location	Description
None	

## J4.11 Government Recognized System Deficiencies

There are no significant planned improvements to the Vance wastewater collection system. Although collection lines are old, recent sliplining projects have greatly reduced I&I problems. Hence, there are no deficiencies listed in Table 6.

**TABLE 6**  
 System Deficiencies  
*Wastewater Utility System - Vance AFB*

Project Location	Project Description
	None